

IN THE CLAIMS

Please amend Claims 1-24 as indicated.

1. (Currently Amended) ~~A self-contained reusable~~ An electronic musculoskeletal stimulation apparatus comprising:

a flexible housing conformable to a portion of a body, said housing being formed by one or more layers of water resistant material;

a control circuit connected directly to two or more electrodes, wherein said control circuit and said electrodes are substantially contained within the ~~same~~ housing; and

~~wherein said control circuit is surrounded by~~ a layer of electrical insulation surrounding at least a portion of the control circuit;

~~wherein said housing is formed by one or more layers of water resistant materials to form a water resistant apparatus;~~

~~wherein said apparatus forms a flexible device that fits close to a body; and~~

wherein said apparatus is attachable to said body with adhesive comprising ~~replaceable one or more~~ electrode pads.

2. (Currently Amended) The ~~self-contained reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus has an adjustable voltage intensity which ranges from approximately 90 volts to 180 volts.

3. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus has an adjustable voltage intensity that includes a low, a medium and a high intensity level.

4. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said low intensity level outputs approximately 90 to 99 volts.

5. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said body receives approximately 15 to 19.5 volts when said apparatus is attached on said body and low intensity level is activated.

6. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said medium intensity level outputs approximately 100 to 150 volts.

7. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said body receives approximately 19.6 to 22.9 volts when said apparatus is attached on said body and medium intensity level is activated.

8. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said high intensity level outputs approximately 155 to 180 volts.

9. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 3, wherein said body receives approximately 23 to 27 volts when said apparatus is attached on said body and high intensity level is activated.

10. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said housing is composed of polyvinylchloride.

11. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said housing is composed of thermoplastic material.

12. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus is powered by a 3 volt lithium battery.

13. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus outputs a square waveform at a constant current.

14. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus uses a frequency of approximately 0.1 to 4000 hertz.

15. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus uses a frequency of approximately 7 hertz.

16. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus has a pulse-width of approximately 0.01 microseconds to 50 milliseconds.

17. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus has a pulse-width of approximately 45 milliseconds.

18. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus outputs approximately thirty pulses over a four second duration.

19. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus includes at least two buttons, whereby the first button powers said apparatus on and off and selects an intensity of said stimulation and the second button activates said stimulation.

20. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said apparatus includes at least one indicator that displays the status of said apparatus.

21. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 20, wherein said apparatus includes three indicators whereby each indicator corresponds to an intensity of stimulation and displays which intensity has been selected, when said apparatus is delivering treatment, and what intensity treatment is being delivered to a patient.

22. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein said electrogel pads are composed of hydrogel.

23. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 22, wherein said electrogel pads adhere to the body and the apparatus by the adhesive properties of the hydrogel.

24. (Currently Amended) The ~~self-contained-reusable~~ electronic musculoskeletal stimulation apparatus of claim 1, wherein each of said one or more electrogel pads are secured to the apparatus by use of a fastening arrangement where a male component is located on either one of the apparatus or a backside of the electrogel pad and couples with a female component which is located on the ~~corresponding other of the~~ apparatus or backside of the electrogel pad.

Claims 25-47. Withdrawn.